

Appl No.: 10/817,283

Atty. Dkt.  
PC1664

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1(Previously Presented). An efficient method of combining signals from a digital transmitter and an analog transmitter to produce a combined 11D (High Definition) radio signal, comprising the steps of:

- providing a Linear Solid State IBOC transmitter with both digital and analog carriers output;
- providing a separate analog transmitter with an analog output, by
  - splitting an output from an analog exciter to an RF circulator and to a phase compensation circuit; and
  - feeding the output of the phase compensation circuit to the separate analog transmitter; and
  - combining the output of the RF circulator to an output from an IBOC exciter with a low level combiner; and
  - feeding the output of the low level combiner to the Linear Solid State IBOC transmitter; and
- combining the digital and analog carriers output of Linear Solid State IBOC transmitter through a combiner with the analog output of the separate analog transmitter.

Claim 2(Original). The method of claim 1, wherein the combiner includes the step of: providing a 3dB Hybrid combiner.

Claim 3(Canceled).

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Claim 4(Previously Presented). An efficient system for combining signals from a digital transmitter and an analog transmitter to produce a combined HD (High Definition) radio signal, comprising:

- a Linear Solid State IBOC transmitter that outputs both digital and analog carriers;
- a separate analog transmitter with an analog output; and
- a combiner for combining the digital and analog carriers output of the Linear Solid State IBOC transmitter with the analog output of the separate analog transmitter;
- a splitter for splitting an output from an analog exciter to an RF(radio frequency) circulator and to a phase compensation circuit, and feeding the output of the phase compensation circuit to the separate analog transmitter; and
- a combiner for combining the output of the RF circulator to an output from an IBOC exciter with a low level combiner and feeding the output of the low level combiner to the Linear Solid State IBOC transmitter.

Claim 5(Original). The system of claim 4, wherein the combiner includes:

- a 3dB Hybrid combiner.

Claim 6(Canceled).

Claim 7(Previously Presented). A method of combining signals from transmitters to produce a combined HD (High Definition) radio signal, comprising the steps of:

- providing first transmitter with both digital and analog carriers output;
- providing a second transmitter with an analog output, by
  - splitting an output from an analog exciter to an RF(radio frequency) circulator and to a phase compensation circuit; and

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feeding the output of the phase compensation circuit to the second transmitter; and  
combining the output of the RF(radio frequency) circulator to an output from an exciter with a low level combiner; and  
feeding the output of the low level combiner to the first transmitter; and  
combining the digital and analog carriers output of the first transmitter through a combiner with the analog output of second transmitter, to generate an IID radio signal.

Claim 8(Original). The method of claim 7, wherein the combiner includes the step of: providing a 3dB Hybrid combiner.

Claim 9(Canceled).

Claim 10(Previously Presented). A system for combining signals from a digital transmitter and an analog transmitter to produce a combined HD(High Definition) radio signal, comprising:

a first transmitter that outputs both digital and analog carriers;  
a second transmitter with an analog output; and  
a combiner for combining the digital and analog carriers output of the first transmitter with the output of the second transmitter to generate an IID output;  
a splitter for splitting an output from an analog exciter to an RF (radio frequency) circulator and to a phase compensation circuit, and feeding the output of the phase compensation circuit to the second transmitter; and  
a combiner for combining the output of the RF (radio frequency) circulator to an output from an exciter with a low level combiner and feeding the output of the low level combiner to the first transmitter.

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Claim 11(Original). The system of claim 10, wherein the combiner includes:  
a 3dB Hybrid combiner.

Claim 12(Canceled).

Claim 13(Previously Presented). A method of converting a radio station from analog transmission to digital transmission, comprising the steps of:

- providing a first transmitter with both digital and analog carriers output;
- providing a second transmitter with an analog output, by
  - splitting an output from an analog exciter to an RF (radio frequency) circulator and to a phase compensation circuit; and
  - feeding the output of the phase compensation circuit to the second transmitter; and
  - combining the output of the RF (radio frequency) circulator to an output from an exciter with a low level combiner; and
  - feeding the output of the low level combiner to the first transmitter; and
- combining the digital and analog carriers output of the first transmitter through a combiner with the analog output of the second transmitter, to generate an HD radio signal.

Claim 14(Original). The method of claim 13, wherein the combiner includes the step of: providing a 3dB Hybrid combiner.

Claim 15(Canceled).

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Claim 16(Previously Presented). A method of generating efficient high definition (HD) radio signals for radio stations with transmission power output (TPO) between approximately 5,000 watts and 35,000 watts while energy costs are lowered, comprising the steps of:

- providing a first transmitter with both digital and analog carriers output;
- providing a second transmitter with an analog output, by
  - splitting an output from an analog exciter to an RF (radio frequency) circulator and to a phase compensation circuit; and
  - feeding the output of the phase compensation circuit to the second transmitter; and
  - combining the output of the RF (radio frequency) circulator to an output from an exciter with a low level combiner; and
  - feeding the output of the low level combiner to the first transmitter; and
  - combining the first transmitter through a combiner with the second transmitter without an additional reject load from either the first transmitter or the second transmitter, to generate an HD radio signal, wherein energy costs are lowered over existing methods of generating HD radio signals.

Claim 17(Original). The method of claim 16, wherein the combiner includes the step of: providing a 3dB hybrid combiner.

Claim 18(Canceled).

Claims 19-25(Canceled).

Claims 26-29(Canceled).